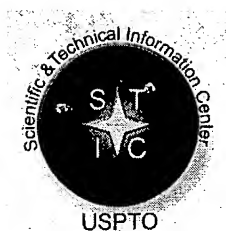


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| 6 | 492 | (564/152).CCLS. | USPAT; US-PGPUB | 2004/09/28 16:10 |



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 133744

TO: Shailendra Kumar
Location: 5c03 / 5c18
Tuesday, September 28, 2004
Art Unit: 1621
Phone: 272-0640
Serial Number: 10 / 765602

From: Jan Delaval
Location: Biotech-Chem Library
Rem 1A51
Phone: 272-2504

jan.delaval@uspto.gov

Search Notes

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: S. Kumar Examiner #: 69594 Date: 9/28/04
 Art Unit: 1621 Phone Number 2-0640 Serial Number: 10 765 602
 Mail Box and Bldg/Room Location: REM 5C03 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

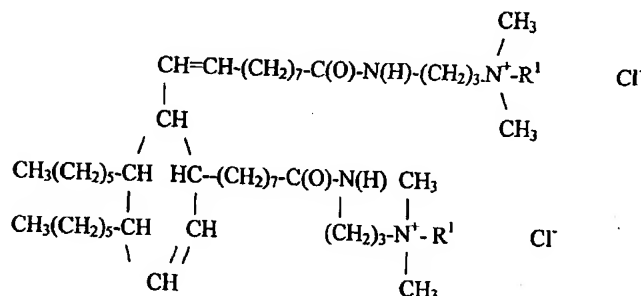
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Dimer amidopropyl dimethyl quaternary compounds

Inventors (please provide full names): Anthony J. O'Leisek Jr. et al

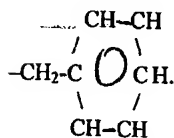
Earliest Priority Filing Date: 1/28/04

1. A quaternary compound conforming to the following structure:



wherein;

R¹ is selected from the group consisting of -CH₃, -CH₂-CH(OH)CH₂OH and



2. A quaternary compound of claim 1 wherein R¹ is -CH₃.

3. A quaternary compound of claim 1 wherein R¹ is -CH₂-CH(OH)CH₂OH.

Jan 9/28/04

=> fil reg

FILE 'REGISTRY' ENTERED AT 11:59:58 ON 28 SEP 2004

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STRUCTURE FILE UPDATES: 27 SEP 2004 HIGHEST RN 752974-11-1

DICTIONARY FILE UPDATES: 27 SEP 2004 HIGHEST RN 752974-11-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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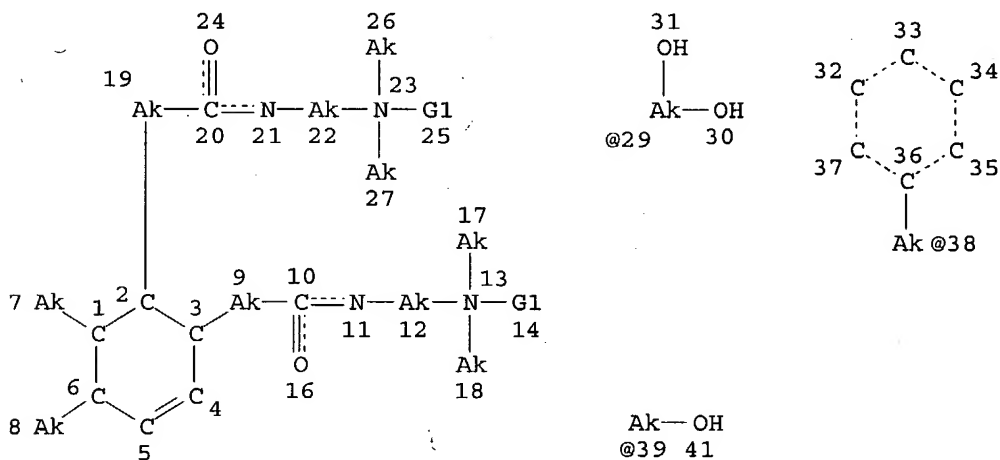
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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d sta que l6

L4 STR



VAR G1=AK/29/38/39

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE

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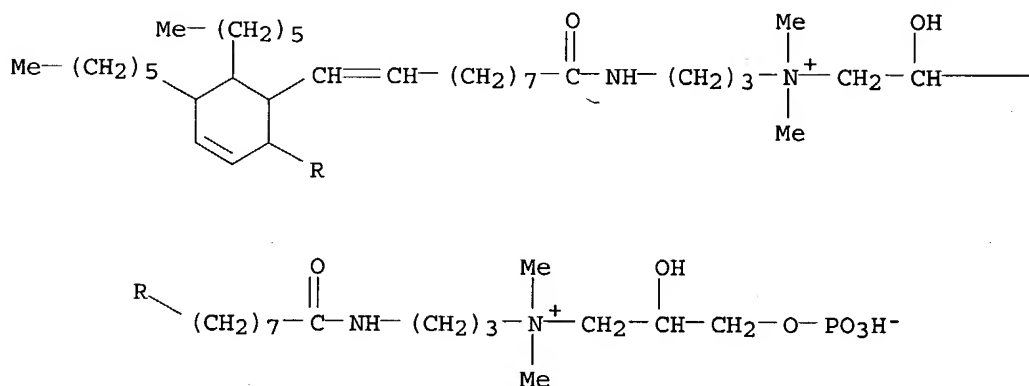
SEARCH TIME: 00.00.02

3 ANSWERS

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L6 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
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 CN 1-Propanaminium, 3-[[8-[4,5-dihexyl-6-(17,20,20-trihydroxy-15,15-dimethyl-20-oxido-10-oxo-19-oxa-11-aza-15-azonia-20-phosphaeicos-1-en-1-yl)-2-cyclohexen-1-yl]-1-oxooctyl]amino]-N-[2-hydroxy-3-(phosphonooxy)propyl]-N,N-dimethyl-, bis(inner salt), disodium salt (9CI) (CA INDEX NAME)
 MF C52 H102 N4 O12 P2 . 2 Na
 SR CAS Client Services
 LC STN Files: CA, CAPLUS, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

PAGE 1-A



● 2 Na

PAGE 1-B

—CH₂—O—PO₃H[−]

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

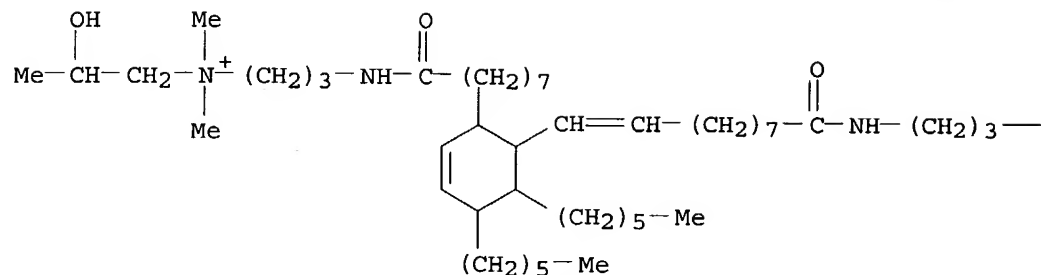
REFERENCE 1: 136:42546

L6 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 147831-24-1 REGISTRY
 CN 1-Propanaminium, 3-[[8-[4,5-dihexyl-6-[10-[[3-[(2-hydroxypropyl)dimethylammonio]propyl]amino]-10-oxo-1-decenyl]-2-cyclohexen-1-yl]-1-oxooctyl]amino]-N-(2-hydroxypropyl)-N,N-dimethyl-, dinitrate (salt) (9CI) (CA INDEX NAME)
 MF C52 H102 N4 O4 . 2 N O3
 SR CA
 LC STN Files: CA, CAPLUS
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: USES (Uses)

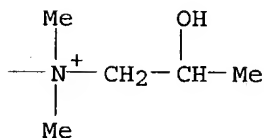
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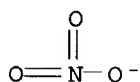


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CMF N O3

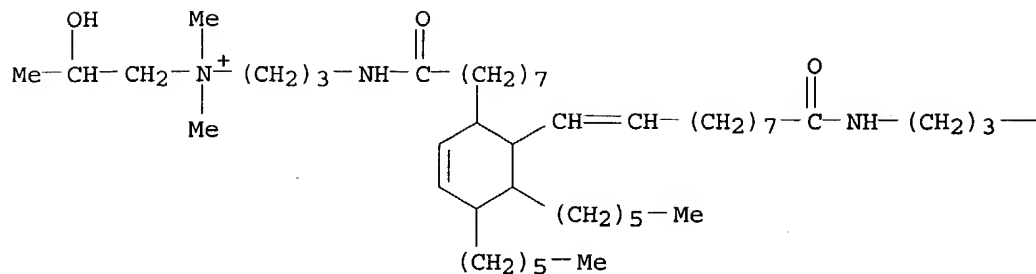


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

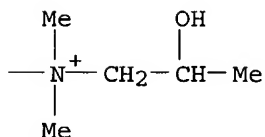
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L6 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
RN 147831-23-0 REGISTRY
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FS 3D CONCORD
MF C52 H102 N4 O4
CI COM
SR CA

PAGE 1-A



PAGE 1-B



=> d his

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L2 0 S L1 CSS SAM
L3 1 S L1 SAM
L4 STR L1
L5 1 S L4
L6 3 S L4 FUL
SAV L6 KUMAR765/A TEMP

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L7 0 S L6

FILE 'HCAPLUS' ENTERED AT 11:59:12 ON 28 SEP 2004

L8 2 S L6
L9 1 S L8 AND (O LENICK? OR OLENICK? OR LENICK?)/AU,PA,CS
L10 2 S L8,L9

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L11 1 S L6

FILE 'REGISTRY' ENTERED AT 11:59:58 ON 28 SEP 2004

=> fil hcaplus

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FILE COVERS 1907 - 28 Sep 2004 VOL 141 ISS 14
FILE LAST UPDATED: 27 Sep 2004 (20040927/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L10 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:914993 HCAPLUS
DN 136:42546
ED Entered STN: 19 Dec 2001
TI Dimer amidopropyl dimethyl phospholipids as barrier compounds
IN Smith, Scott; Smith, Dean; O'Lenick, Anthony J., Jr.
PA Colonial Chemical Inc, USA
SO U.S.; 4 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K007-42
ICS A61K009-127; A61K031-685; A61K031-66; G01N033-92; C07F009-02
NCL 424059000
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 23, 24
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 6331293 | B1 | 20011218 | US 2001-872908 | 20010604 |
| PRAI US 2001-872908 | | 20010604 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|--|
| US 6331293 | ICM | A61K007-42 |
| | ICS | A61K009-127; A61K031-685; A61K031-66; G01N033-92; C07F009-02 |
| | NCL | 424059000 |

AB The present invention relates to compds. and, more particularly, to a class of compds. having specific quaternized amine based upon a dimer acid amido amine linked to specific phosphate esters. Dimer acid is a C-36 diacid having a cyclic structure and two amine groups that allow for the synthesis of a high mol. weight material phospholipid composition which is extremely substantive to human skin and are well tolerated by human tissue making them suitable for use preparation of barrier products for personal care applications. For example, .

ST dimer amidopropyl dimethyl phospholipid prepn barrier cosmetic

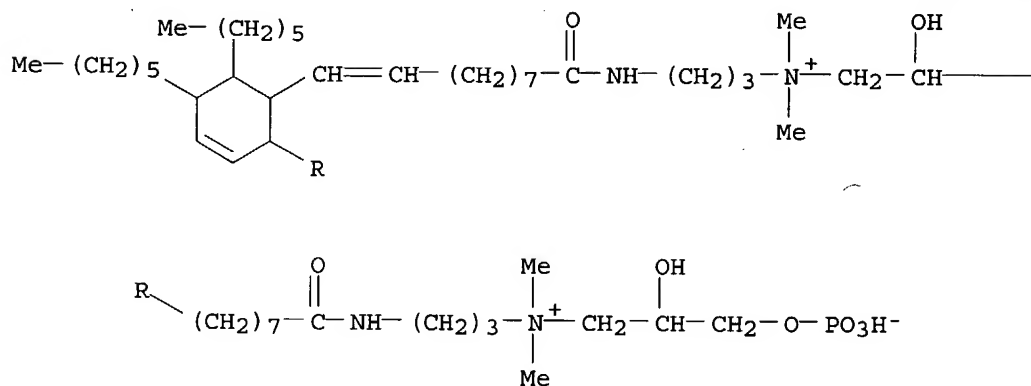
IT Cosmetics
(barrier; dimer amidopropyl di-Me phospholipids as barrier compds.)

IT Phospholipids, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dimer amidopropyl di-Me phospholipids as barrier compds.)

IT 360560-90-3P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(dimer amidopropyl di-Me phospholipids as barrier compds.)
 IT 106-89-8, Epichlorohydrin, reactions 109-55-7 47818-40-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (dimer amidopropyl di-Me phospholipids as barrier compds.)
 IT 26807-13-6P, 3-Chloro-2-hydroxypropyl-phosphate 380413-64-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (dimer amidopropyl di-Me phospholipids as barrier compds.)
 RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Diery; US 3856893 1974 HCAPLUS
 IT 360560-90-3P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (dimer amidopropyl di-Me phospholipids as barrier compds.)
 RN 360560-90-3 HCAPLUS
 CN 1-Propanaminium, 3-[[8-[4,5-dihexyl-6-(17,20,20-trihydroxy-15,15-dimethyl-
 20-oxido-10-oxo-19-oxa-11-aza-15-azonia-20-phosphaeicos-1-en-1-yl)-2-
 cyclohexen-1-yl]-1-oxooctyl]amino]-N-[2-hydroxy-3-(phosphonooxy)propyl]-
 N,N-dimethyl-, bis(inner salt), disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B

—CH₂—O—PO₃H⁻

L10 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1993:256656 HCAPLUS
 DN 118:256656
 ED Entered STN: 26 Jun 1993
 TI Coating of plastic moldings after treatment with quaternary ammonium
 compound
 IN Akeboshi, Koji; Uohashi, Hiromichi; Shimizu, Shigeru; Hayashibe, Kunihiro
 PA Nihon GE Plastics, Ltd., Japan; Yoshimura Oil Chemical Co., Ltd.
 SO Jpn.. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent

LA Japanese
 IC ICM C08J007-04
 ICS B05D003-10; B05D007-02
 CC 42-2 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 46

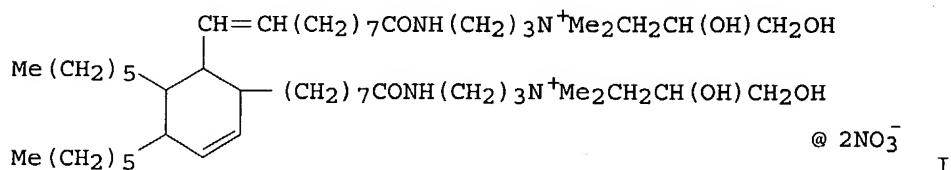
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 04202336 | A2 | 19920723 | JP 1990-333351 | 19901129 |
| PRAI | JP 1990-333351 | | 19901129 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 04202336 | ICM | C08J007-04 |
| | ICS | B05D003-10; B05D007-02 |

GI



- AB Plastic moldings such as automobile bumpers or bodies are treated with surfactants containing $\geq 30\%$ (non)cyclic dimer or trimer acid-based quaternary ammonium compds. before coating with primers to ensure low surface resistivity and give smooth top coatings. A GTX 6006 (polyamide-polyoxyphenylene blend) molding was soaked in aqueous H₃PO₄, washed with water, dried, soaked in iso-PrOH containing 1% I (Elic PS 920), and dried at 75° to give a sheet with resistivity 2.3 + 108 Ω -cm initially and 7.7 + 108 Ω -cm after 30 min at 160°, vs. 6.8 + 108 and 1012, resp., with C17H35CONH(CH₂)₃N⁺Me₂CH₂CH₂OH NO₃- instead of I.
- ST dimer acid ammonium surfactant primer; trimer acid ammonium surfactant primer; automobile coating primer surfactant pretreatment; bumper automobile coating surfactant
- IT Surfactants
 (ammonium compds., plastic moldings treated by, for primer and topcoat smoothness)
- IT Coating process
 (of plastic moldings, surfactant treatment in, for primer and topcoat smoothness)
- IT Automobiles
 (bumpers, coating of, ammonium surfactant in, for primer and topcoat smoothness)
- IT **147831-24-1**
 RL: USES (Uses)
 (surfactants, plastic moldings pretreated by, for primer and topcoat smoothness)
- IT **147831-24-1**
 RL: USES (Uses)
 (surfactants, plastic moldings pretreated by, for primer and topcoat smoothness)
- RN 147831-24-1 HCAPLUS
- CN 1-Propanaminium, 3-[[8-[4,5-dihexyl-6-[10-[[3-[(2-hydroxypropyl)dimethylammonio]propyl]amino]-10-oxo-1-decenyl]-2-cyclohexen-1-yl]-1-oxooctyl]amino]-N-(2-hydroxypropyl)-N,N-dimethyl-, dinitrate

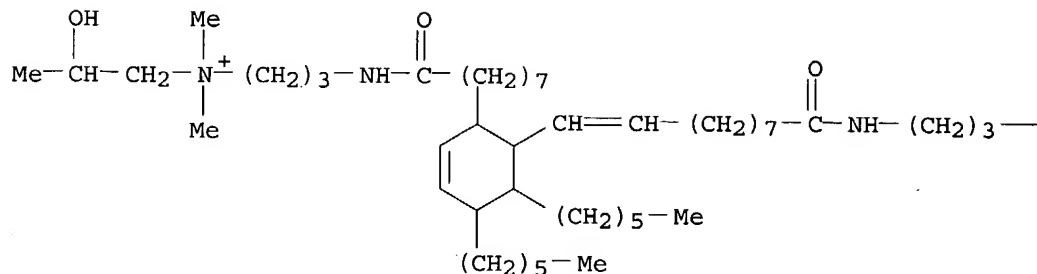
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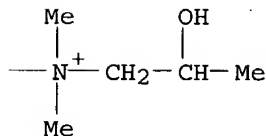
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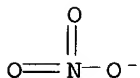
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CM 2

CRN 14797-55-8

CMF N O3



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CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 12:00:52 ON 28 SEP 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitstr l11

L11 ANSWER 1 OF 1 USPATFULL on STN

AN 2001:231045 USPATFULL

TI Dimer amidopropyl dimethyl phospholipids as barrier compounds

IN Smith, Scott, Chattanooga, TN, United States

Smith, Dean, Chattanooga, TN, United States

O'Lenick, Jr., Anthony J., Dacula, GA, United States

PA Colonial Chemical INC, South Pittsburgh, TN, United States (U.S. corporation)

PI US 6331293 B1 20011218
 AI US 2001-872908 20010604 (9)
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Pryor, Alton
 CLMN Number of Claims: 4
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 192

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compounds and, more particularly, to a class of compounds having specific quaternized amine based upon a dimer acid amido amine linked to specific phosphate esters. Dimer acid is a C-36 diacid having a cyclic structure and two amine groups that allow for the synthesis of a high molecular weight material phospholipid composition which is extremely substantitive to human skin and are well tolerated by human tissue making them suitable for use preparation of barrier products for personal care applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

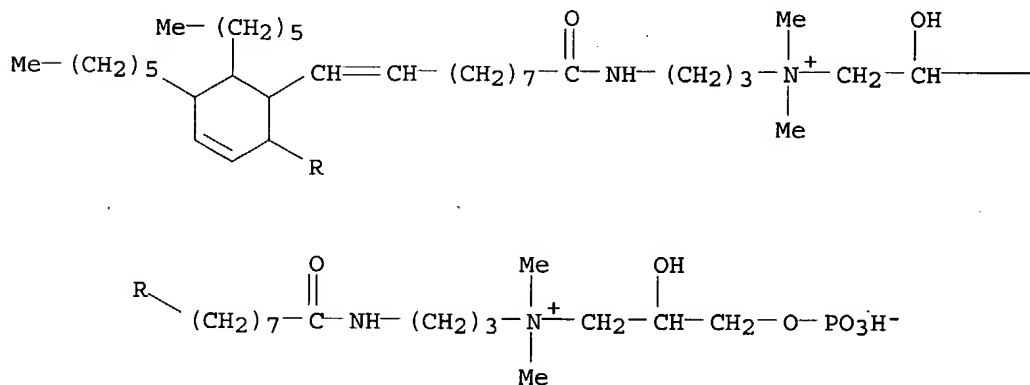
IT 360560-90-3P

(dimer amidopropyl di-Me phospholipids as barrier compds.)

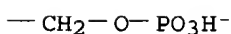
RN 360560-90-3 USPATFULL

CN 1-Propanaminium, 3-[[8-[4,5-dihexyl-6-(17,20,20-trihydroxy-15,15-dimethyl-20-oxido-10-oxo-19-oxa-11-aza-15-azonia-20-phosphaeicos-1-en-1-yl)-2-cyclohexen-1-yl]-1-oxooctyl]amino]-N-[2-hydroxy-3-(phosphonooxy)propyl]-N,N-dimethyl-, bis(inner salt), disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



=>

* * * * * STN Columbus * * * * *

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=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

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DICTIONARY FILE UPDATES: 27 SEP 2004 HIGHEST RN 752974-11-1

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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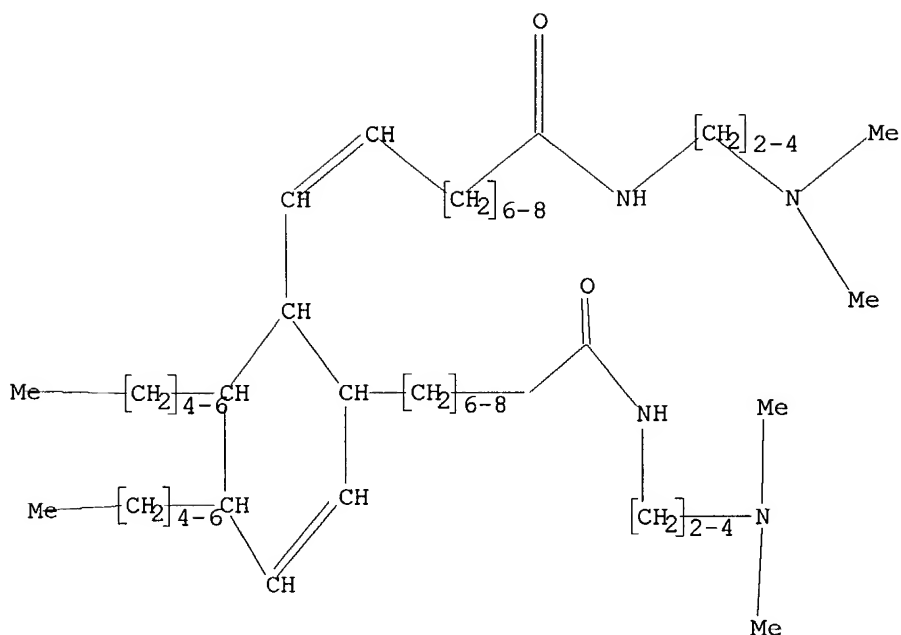
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L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 1 TO 80
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

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SEARCH TIME: 00.00.01

0 ANSWERS

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